

lower angle of cell and on vein 1; postmedial line white defined on each side by red-brown, excurved to vein 2, then incurved. Hind wing creamy ochreous tinged with rufous especially on basal area; a blackish-brown patch above basal half of inner margin, with a white bar at its extremity; a curved very slightly waved white postmedial line defined on each side by dark brown and by black on outer side at tornus; a fine rufous line near base of cilia. Underside ochreous white; fore wing with the costal and terminal areas tinged and irrorated with red, the costa with series of white points with dark brown between them to the postmedial line, which is defined on outer side by red-brown; hind wing with the costal area tinged and irrorated with red, the postmedial line as above but less distinct.

*Hab.* BR. E. AFRICA (*Gregory*), 1 ♂, Machakos (*Crawshay*), 1 ♂; MASHONALAND, Salisbury (*Marshall*), 1 ♂ type; ADEN, Haithalhim (*Yerbury*), 1 ♂. *Exp.* 14-18 mm.

[To be continued.]

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XLV.—*A new Species of the Crustacean Genus Squilla from West Africa.* By W. T. CALMAN, D.Sc.

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*Squilla africana*, sp. n.

*Squilla empusa* (part.), Miers, Ann. & Mag. Nat. Hist. (5) v. 1880, p. 23.

*Squilla empusa*, Jurich, Die Stomatopoden d. deutschen Tiefsee-Expedition. Wiss. Ergeb. d. d. Tiefsee-Exp. 'Valdivia,' vii. 1904, p. 366, pl. xxv. fig. 3.

Non *Squilla empusa*, Say, Journ. Acad. Nat. Sci. Philadelphia, i. 1818, p. 250.

*Description.*—Dorsal surface smooth and more or less polished between the carinae. Breadth of carapace behind antero-lateral teeth about one-half of its length. Anterior margin on either side of rostral plate concave and slightly oblique, tips of strong antero-lateral teeth not nearly reaching level of frontal edge.

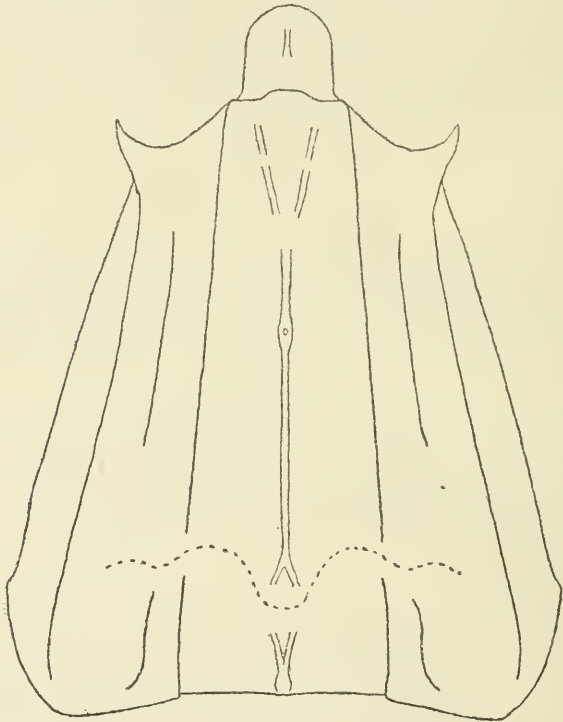
All carinae of carapace well marked. Median carina forked in front and behind; in full-grown specimens it is always interrupted just where it divides anteriorly, and in some specimens the limbs of the fork are almost obliterated. Dorsal pit a little nearer to the frontal margin than to the cervical groove; anterior fork of median carina extending not more than two-thirds of the distance from frontal margin to dorsal pit. Lateral margin of carapace distinctly angled posteriorly.

Rostral plate nearly as long as it is broad at the base, nearly parallel-sided, with a short but distinct median carina.

Anterior lobe of ocular somite rounded, with a shallow median notch. Eyes with corneal axis about equal to peduncular axis, set obliquely.

Dorsal processes of antennular somite directed forwards. Antennular peduncle shorter than carapace.

Fig. 1.



*Spulla africana*, sp. n. Carapace, with rostral plate, from above.

Third segment of mandibular palp about twice as long as second.

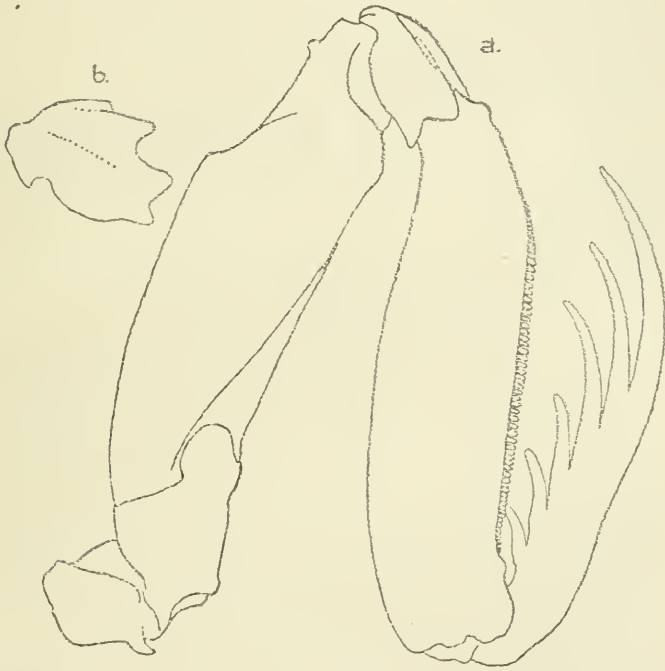
Raptorial limb with a strong curved tooth posteriorly on distal edge of proximal segment; carpus with an undivided ridge ending in a rectangular tooth on its anterior surface; propodus more than three times as long as wide, its pectinated

edge ending distally in a very slight tubercle. Dactylus with six teeth, including the terminal one.

Fifth thoracic limb without epipodite.

Free thoracic somites with well-marked submedian and intermediate carinæ not ending in spines. Fifth somite with lateral teeth undivided, acute, and strongly curved, so that the points are turned almost directly forwards. Lateral plates of sixth and seventh somites less acute than in *S. empusa*.

Fig. 2.



*Squilla africana*, sp. n. *a*, raptorial limb from the side, showing the hook-like tooth on the proximal segment and other characters; *b*, carpus, seen obliquely from in front, showing the ridge on the anterior face.

Abdominal somites with well-marked carinæ. Lateral carinæ ending in spines on all the somites, the intermediate, as a rule, on all except the first and second, and the submedian only on the sixth.

Telson resembling that of *S. empusa*, but with marginal teeth usually longer and more slender; six to eight denticles

between the submedian teeth, six to eight on each side between submedian and intermediate, and one between intermediate and lateral. Marginal thickenings at bases of denticles and teeth not confluent in either sex. Exopod of uropods with seven or eight spines on proximal segment.

A good deal of dark pigment persists in spirit-specimens, the whole dorsal surface being usually sprinkled with minute chromatophores; the most conspicuous and constant markings are a posterior marginal line on each of the free thoracic and abdominal somites, a short transverse band on the tergum of the third abdominal somite, and a conspicuous blotch on the exopod of the uropods, occupying the distal portion of the first segment and the inner edge of the second.

Total length up to 138 mm.

*Holotype*.—Male from Lagos, West Africa. Total length (tip of rostrum to tip of submedian telson spines) 134 mm.; length of carapace in median line (excluding rostrum) 27.75 mm. Presented by Mr. J. Cadman. Brit. Mus. reg. no. 1914. 11. 30. 17.

*Paratypes* in Brit. Mus.—The Gambia (4 sps.); Sierra Leone (1 sp.); Lagos (3 lots, 11 sps.); the Gaboon (2 lots, 2 sps.); West Africa (1 sp.).

*Remarks*.—The West-African specimens referred by Mr. Miers to the North-American *Squilla empusa*, Say, prove, on re-examination, to belong to this very distinct species. Although closely resembling both *S. empusa* and the Mediterranean *S. mantis*, Latreille, it differs from them in having epipodites only on the first four (instead of five) pairs of thoracic appendages, and in the presence of a tooth on the proximal segment and an undivided ridge (instead of two or three teeth) on the carpus of the raptorial limbs. It agrees with *S. mantis* and differs from *S. empusa* in the relative positions of the dorsal pit and the anterior bifurcation on the median carina of the carapace; but it resembles *S. empusa* in the shorter corneal axis of the eyes and in the pigmentation (so far as it is retained in spirit-specimens), especially in the dark spot on the uropods.

The fact that all the West-African specimens of *Squilla* in the Museum collection belong to this new species makes it probable that all records of *S. empusa* from that region refer to *S. africana*. Jurich's elaborate description (*l. c.*) of a solitary specimen from the Congo does not mention a single one of the distinctive characters, but his figure shows, in the position of the dorsal pit of the carapace, the strongly procurved processes of the fifth thoracic somite, and, less distinctly, in the undivided ridge on the carpus, features that are peculiar to *S. africana*.